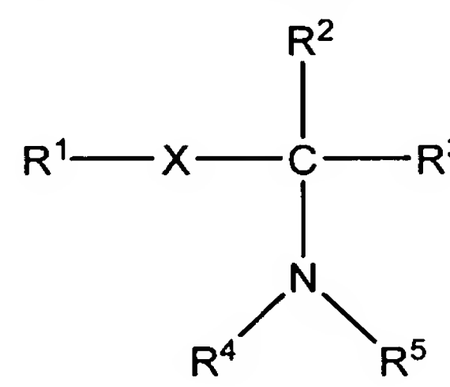
AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Original) A compound corresponding to formula (I)



in which

- R^1 is a functional group capable of reacting with the functions present on proteins, antibodies or on mineral or organic materials;
- X represents a single bond or a hydrocarbon-based chain consisting of at least one group chosen from alkylene groups and alkenylene groups optionally comprising at least one hetero atom, and from arylene groups;
- R^2 is a group A^2 that is anionic at neutral pH or an alkylene or alkenylene group containing from 1 to 4 carbon atoms and bearing at least one such group A^2, said alkylene or alkenylene group optionally comprising at least one hetero atom in the chain;
- R^3 represents H or an alkylene or alkenylene group containing from 1 to 5 carbon atoms and optionally containing at least one hetero atom in the chain, said group optionally bearing at least one group A^3 that is anionic at neutral pH;
- R^4 is chosen from the groups corresponding to the formula $-(C)_n-C-Z^1-C-C-Z^2-C-A^4$ in which n is equal to 1 or 2, Z^1 and Z^2 represent, independently of each other, a hetero atom chosen from O and N, at least one being a nitrogen atom forming part of an aromatic heterocycle with the two carbon atoms surrounding it, and A^4 is a group that is anionic at neutral pH, in which the atom bearing the anionic charge is in the γ position relative to Z^2;
- R^5 is chosen from the groups defined for R^4 or from groups corresponding to the formula $-C-C-E^1-C-C-E^2-C-A^5$ in which E^1 and E^2 represent, independently of each other,

a hetero atom chosen from O and N, and A^5 is a group that is anionic at neutral pH, in which the atom bearing the anionic charge is in the γ position relative to E^2.

2. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the substituent R^1 is ~~chosen~~ selected from the group consisting of amino, thio, cyano, isocyano, acridinyl, hydrazino, haloacetate, anhydride, triazo, carbonyl, nitrobenzoyl, sulfonyl, thionyl, halide, epoxide, aldehyde, imidazole, hydroxyphenyl, mercapto, N-succinimidyl ester, N-sulfosuccinimidyl ester, maleimido, hydroxyl, carboxyl, thiocyano, and isothiocyano groups.

3. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the substituent R^2 is a group A^2 that is anionic at neutral pH.

4. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the substituent R^3 is H or a C_1 to C_3 alkyl.

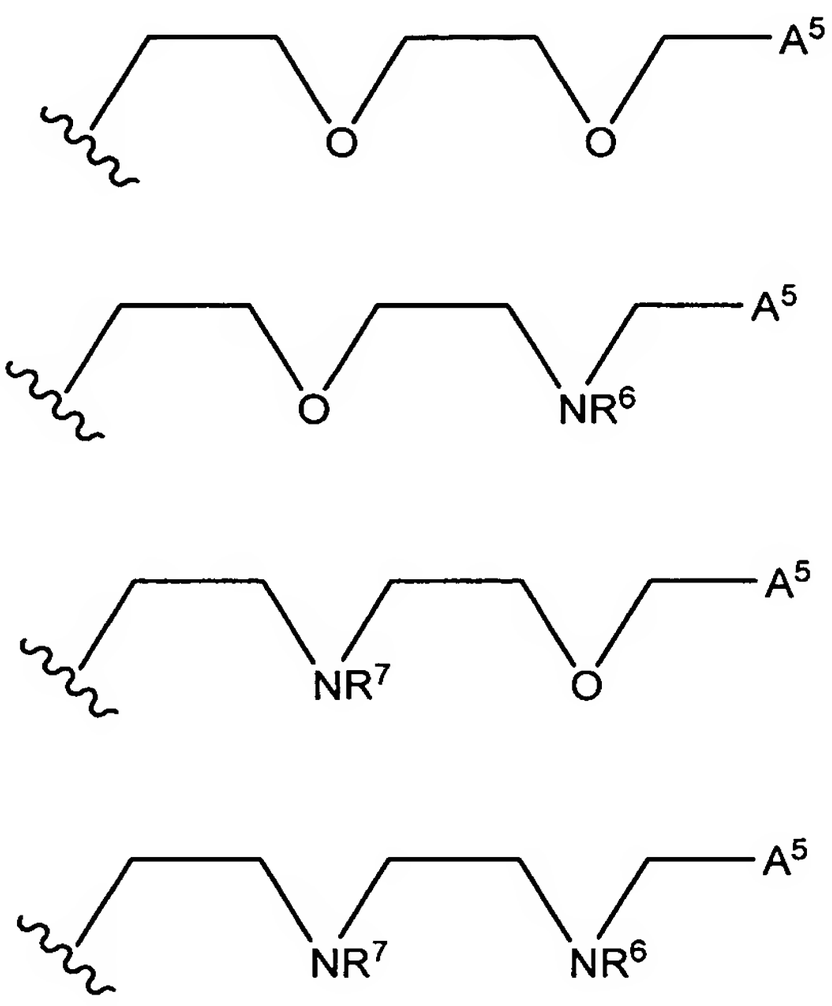
5. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the groups Z^1 and Z^2 of R^4 form part of an aromatic heterocyclic group.

6. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein n is equal to 1.

7. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein one of the segments –C-Z^1-C- or –C-Z^2-C- forms part of a heterocyclic group chosen from pyridyl, pyrimidinyl, quinolyl and isoquinolyl groups.

8. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the segment -C-Z^1-C–C-Z^2-C- is ~~chosen~~ selected from the group consisting of 2,2'-bipyridinyl, 1,10-phenanthrolinyl, 2,2'-bisquinolyl, 2,2'-bisisoquinolyl and 2,2'-bipyrimidinyl groups, said groups possibly bearing alkyl or alkoxy substituents on at least one carbon atom of a heterocycle.

9. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein R^5 is selected ~~chosen~~ from the group consisting of ~~following groups~~:



and

in which R^6 and R^7 represent alkyl chains containing from 1 to 5 carbon atoms and optionally containing one or more hetero atoms.

10. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein R^4 and R^5 are identical.

11. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the groups A^2, A^3, A^4 and ~~or~~ A^5 that are anionic at neutral pH are chosen, independently of each other, from $-CO_2H$, $-SO_3H$, $-P(O)(OR)OH$, $-P(O)R(OH)$ and $-P(O)(OH)_2$ groups in which R is an alkyl group or an aryl group.

12. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the compound ~~it~~ is in cationic form, the nitrogen bearing the

substituents R^4 and R^5, and also possibly the hetero atoms Z^1, Z^2, E^1 and E^2, being in protonated form.

13. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the compound ~~it~~ is in anionic form, the various groups A^i being in the form of salts.

14. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the compound ~~it~~ is in zwitterionic form, the nitrogen bearing the substituents R^4 and R^5, and also possibly the hetero atoms Z^1, Z^2, E^1 and E^2, being in protonated form, and the various groups A^i being in the form of salts.

15. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein X is an arylene group comprising one or more fused or unfused aromatic nuclei, said nucleus (nuclei) optionally bearing one or more aliphatic hydrocarbon-based groups.

16. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the group X is an alkylene or alkenylene group containing from 1 to 10 carbon atoms.

17. (Currently Amended) The compound as claimed in claim 1, ~~characterized in that~~ wherein the group X is an arylene group containing from 5 to 10 carbon atoms.

18. (Currently Amended) A process for preparing a lanthanide complex, ~~characterized in that it consists in~~ comprising: reacting a compound (I) as claimed in ~~any one of claims 1 to 17~~ claim 1 with a compound giving a lanthanide cation.

19. (Currently Amended) The process as claimed in claim 18, ~~characterized in that~~ wherein the compound giving a lanthanide cation is ~~chosen~~ selected

from the group consisting of lanthanide halide hydrates, lanthanide nitrate hydrates, lanthanide carbonates and lanthanide triflates.

20. (Currently Amended) The process as claimed in claim 18, ~~characterized in that~~ wherein the reaction is performed in solution in a solvent ~~chosen~~ selected from the group consisting of water, methanol, ethanol and acetonitrile.

21. (Currently Amended) The process as claimed in claim 18, ~~characterized in that~~ wherein compound (I) is reacted with the lanthanide ion precursor in a mixture of methanol and water at a pH ranging from 3 to 5, for a time of between 10 minutes and 24 hours, at a temperature of between 25°C and 80°C, and the pH of the solution is then adjusted to 7.0 and the methanol is evaporated off.

22. (Currently Amended) A complex obtained via a process as claimed in claim 18, wherein the complex comprises ~~consisting of~~ a lanthanide ion Ln complexed with a ligand corresponding to a compound formula (I).

23. (Currently Amended) The complex as claimed in claim 22, ~~characterized in that~~ wherein the lanthanide ion is ~~chosen~~ selected from the group consisting of from europium, terbium, samarium, dysprosium, erbium, ytterbium, neodymium and gadolinium ions.

24. (Currently Amended) The complex as claimed in claim 22, ~~characterized in that~~ wherein the substituent R^4 of the compound of formula (I) is -C-C-Z^1-C-C-Z^2-C-A^4, the 3 chelate rings being formed between the lanthanide cation and, respectively:

- the N atom bearing R^4 and R^5, Z^1 and the carbon atoms that separate them;
- Z^1, Z^2 and the two carbon atoms that separate them;
- the end segment Z^2-C-A^4.

25. (Currently Amended) The complex as claimed in claim 24, ~~characterized in that~~ wherein the substituent R^5 is of the same type as the substituent R^4.

26. (Currently Amended) The complex as claimed in claim 24, ~~characterized in that~~ wherein the substituent R^5 is of the type -C-C-E^1-C-C-E^2-C-A^5, three 5-membered chelate rings being formed between the lanthanide cation and, respectively:

- the N atom bearing R^4 and R^5, E^1 and the two carbon atoms that separate them;
- E^1, E^2 and the two carbon atoms that separate them;
- the end segment E^2-C-A^5.

27. (Currently Amended) A process for the quantitative or qualitative analysis of a compound, ~~characterized in that it consists in~~ comprising: covalently bonding to said compound a marker consisting of a complex as claimed in ~~one of claims 25 to 29~~ claim 25, and ~~in~~ detecting or quantifying the presence of the marked compound by means of the luminescence properties of the marker.

28. (Currently Amended) The process as claimed in claim 27, ~~characterized in that~~ wherein the complex is a europium, terbium, samarium or dysprosium complex.

29. (Currently Amended) The process as claimed in claim 27, ~~characterized in that~~ wherein the substituent R^1 of the complex is ~~chosen~~ selected from amino, thio and carboxyl groups or from maleimido, N-succinimidyl ester and isothiocyano groups.

30. (Currently Amended) A relaxation agent for nuclear magnetic resonance, consisting of a complex as claimed in ~~one of claims 22 to 26~~ claim 22.

31. (Currently Amended) The relaxation agent as claimed in claim 30, ~~characterized in that~~ wherein the complex is ~~it consists of~~ a gadolinium, europium or dysprosium complex.

32. (Currently Amended) The relaxation agent as claimed in claim 30, ~~characterized in that~~ wherein the complex is ~~it consists of~~ a complex in which the substituent

R^1 is ~~chosen~~ selected from amino, thio and carboxyl groups or from maleimido, N-succinimidyl ester and isothiocyano groups.